

# BROTHER™ HL 1240 • 1650 (TN 430/460) CARTRIDGE REMANUFACTURING INSTRUCTIONS



**BROTHER® HL 1650  
LASER PRINTER**



**TN 430 TONER CARTRIDGE**

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## BROTHER HL 1240 PRINTER SPECIFICATIONS



Released in 1999 the Brother the multi-platform HL1240, HL1250 and HL1270N possesses printing speed of up to 12 ppm, true output of 600 x 600 dpi and first page printing in 14 seconds.

When compared to its predecessors, the printers HL1040 and HL1050, the new HL1200 series offers no engine changes except a slightly small footprint, stylish design and some modifications to the paper trays setup, paper handling capacity and two options of toner cartridges.

Depending on the market the drum and toner cartridges codes for the three models can vary. For North and South America the drum unit has a code DR400 giving some 20000 prints while the corresponding toner cartridges carry numbers TN430 for 3000 pages and TN460 for 6000 pages at 5%. For other territories, the codes are DR6000 for the drum unit, TN6300 for the 3000 pages and TN6600 for the 6000 pages respectively.

The compatibility of either code is wide as these cartridges can be used in quite a number of printers, fax and multifunction equipment as follows:

HL- 1440 / HL-1450 / HL-1470N / HL1470N  
HLP2500 MFP / INTELLIFAX 4750 / 5750 / 8350P  
8750P / MFC-2500 / MFC-8300 / MFC-8500  
MFC-8600 / MFC-8700 / MFC-8750P  
MFC-8750P-NLT / MFC-9600 / MFC-9650  
MFC-9650N / MFC-9660 / MFC-9660N / MFC-9750  
MFC-9750LT / MFC-9850 / MFC-9870LT  
MFC-9970MLT / MFC-9980 / MFC-9980N  
MFC-P2500 / PP1630 / PPF4750 / PPF5750

Some of the characteristics of the toner and drum cartridge are of interest:

The toner cartridge carries the developer roller and the doctor blade together with the hopper .The drum unit carry the OPC drum, the transfer roller, the drum cleaning assembly( including the recovery blade) and the primary charging corona.

In all, the electrophotographic system used in the above mentioned equipment in spite of the use of corotron is of radical design as the developer roller is in direct contact with the drum such as happens with some of Lexmark Optra series and the waste bin is designed to hold a very small amount of toner.

Instead of wiper blade the cartridge uses a polarized felt to clean the drum but at the same time by means of switching polarities send captured particles of unused toner back to the drum and to the developer roller to enter the hopper again.

The following remanufacturing instructions will apply specifically to the TN-430 and TN 460 toner cartridge.



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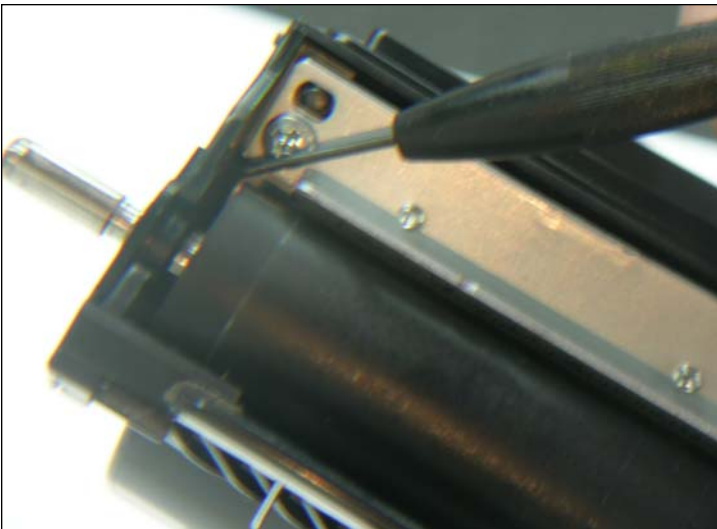
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1. With the use of small flat blade screwdriver, slightly pry up the white plastic alignment hub located from the non-gear side of the developer roller and remove it.



2. NOTE: Be aware of the pressure spring behind the white plastic hub and do not lose it.

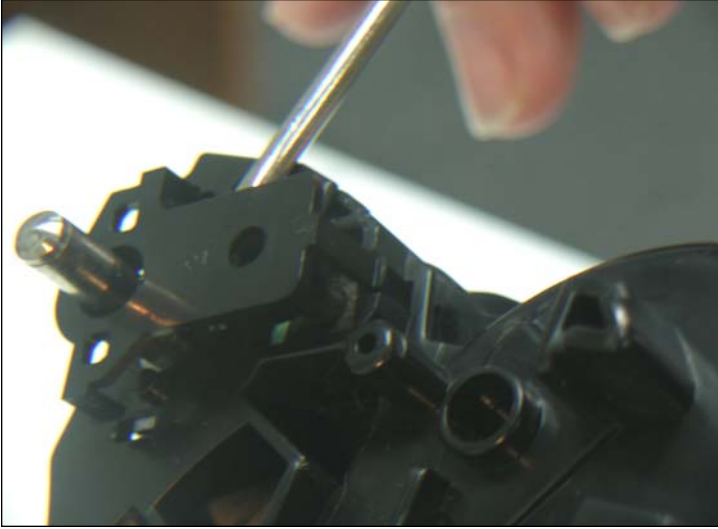


3. On the same side and with the help of a small jeweler screwdriver release the three (3) clips holding the developer roller bearing cap to the toner hopper. The first clip is right below the screw holding the developer blade, the opposite clip is between the side of the roll and the casing while the third one is accessible from outside the casing.

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4. With a small flat blade screwdriver, pry the bearing cap off the developer roller axle and the fixing post.



5. Move to the other side of the cartridge and above the white plastic hub on the gear side, locate the clip that holds the developer roller cap-bearing. NOTE: Contrary to the other bearing cap this one is located between the developer roller and the side of the cartridge.



6. Press the clip in towards the developer roller and rotate the piece up towards the front of the toner hopper, until the bearing cap is perpendicular to the roller.

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7. Lift the developer roller from the hopper. NOTE: Clean the roller using a clean lint free cloth. DO NOT USE any solvent or chemicals on the developer roller.



8. Remove the fill plug from the hopper.

9. Discharge any toner from the toner hopper. Use dry compressed air or a vacuum to THOROUGHLY clean out the toner hopper. Clean the developer blade using a dry lint free cloth.

NOTE: DO NOT attempt to re-use any of the toner remaining in the cartridge and DO NOT complete the charge by adding new or unused toner from another old cartridge.

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10. Reassemble cartridge in reverse order.

Fill cartridge with the adequate load of new toner for 3000 pages in the TN-430 (110 grams) or 6000 pages in the TN-460 (210 grams).



11. Recap the hopper securely.



12. Insert the OEM or the compatible yellow seal cover for the developer roller to protect it during transit.

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**OPC CARTRIDGE**



13. With a medium size Phillips screwdriver remove the screws securing the corona wire assembly. There are two in each corner holding the plastic top and one, visible thru the hole on the right hand side securing the electric contact of the control grid and the cleaning felt.



14. Press the four tabs to remove the assembly from the top of the cartridge starting from the two behind followed by the ones on each side.



15. Clean the grid surface of any toner with compressed air.

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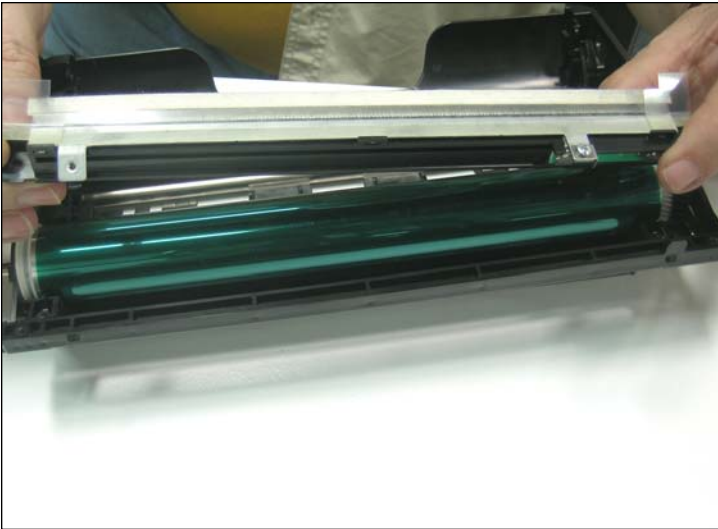
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16. Finish with a dry lint-free cloth.



17. With a Phillips screwdriver remove the screws holding the drum cleaning assembly. You will notice that it is composed of a cleaning felt, a recovery blade and a couple of scraper-blades.



18. Remove and clean the assembly thoroughly removing all remains of old toner.

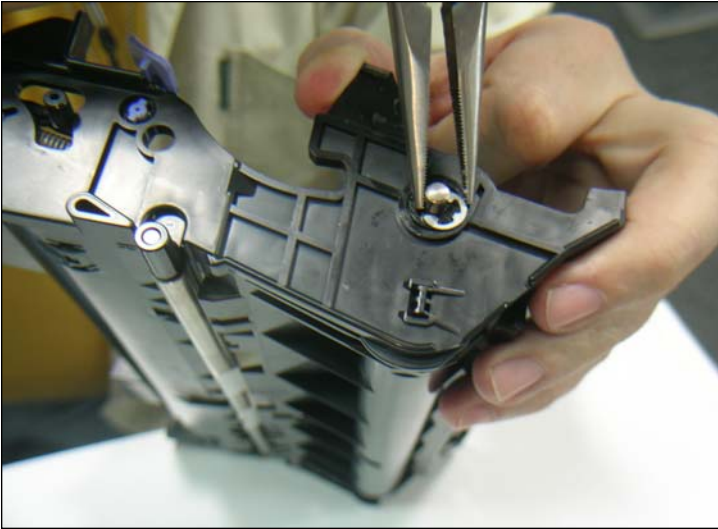


19. Remove the shaft of the drum by releasing the retaining washer from the left side of the cartridge.

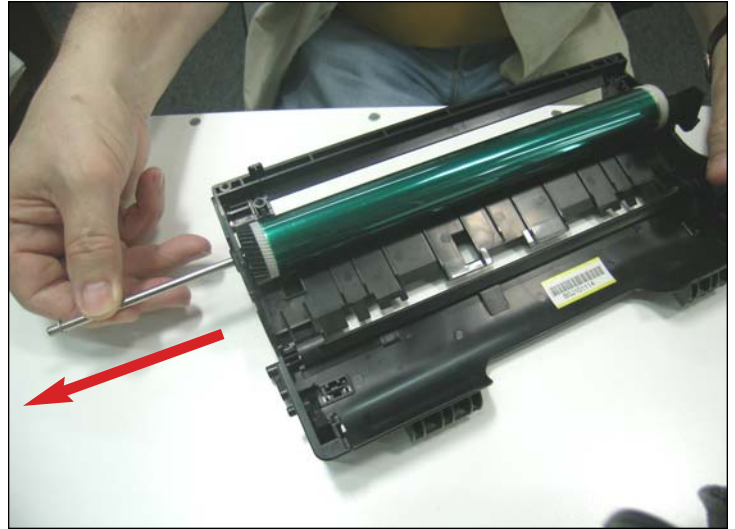
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20. Pull axle out using a pair of needle-nose pliers.



21. Slide the axle away from the cartridge as shown.



22. When the drum is extracted there will be a spring loaded clutch piece at one end and a drive gear on the other side coming loose.



23. Do not lose these three pieces which will be needed to assemble the cartridge even if a new drum is installed.

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24. NOTE: There is also a plastic stabilizer bearing for the axle located on the same side of the clutch gear which must be secured.



25. Extract the transfer roller from the cartridge using a pair of long nose pliers. Notice that the saddles and the helical gear will also come out. Clean the roller with compressed air or vacuum cleaner. DO NOT USE any solvent or chemicals on the transference roller.

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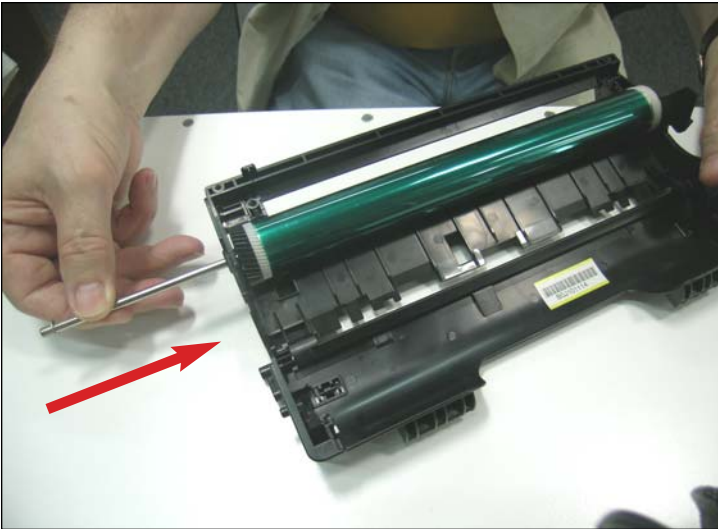
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26. Replace the transfer roller together with its saddles and the helical gear.



27. Replace the OPC drum by mounting the clutch and spring on the right side and engage the drive gear on the left. NOTE: Before inserting the axle lift the spring loaded contact wire located between the drive gear of the OPC and the side of the cartridge.



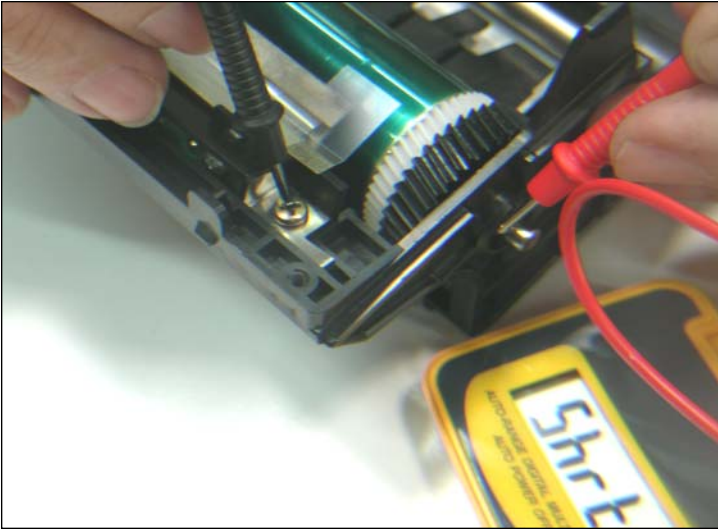
28. Slide the axle from left to right, insert the bearing in place and the retaining washer to secure the axle in place.



29. Insert the drum cleaning assembly and with a Phillips screwdriver and tighten the screws to secure it to the cartridge. The screw on the left will pressure the contact between the assembly and the drum axle.

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30. With a Tester check the electrical continuity between the contact of the assembly and the drum shaft.



31. Insert the lid containing the corona assembly, align the four clips, and press down to clamp it.



32. Tighten the external screws and finally the small internal one.

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